

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P391079

Luminaire Tested: **24CZ2-150VHE-HRP-UNV-L930-CD2-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P391079  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-150VHE-HRP-UNV-L930-CD2-U  
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

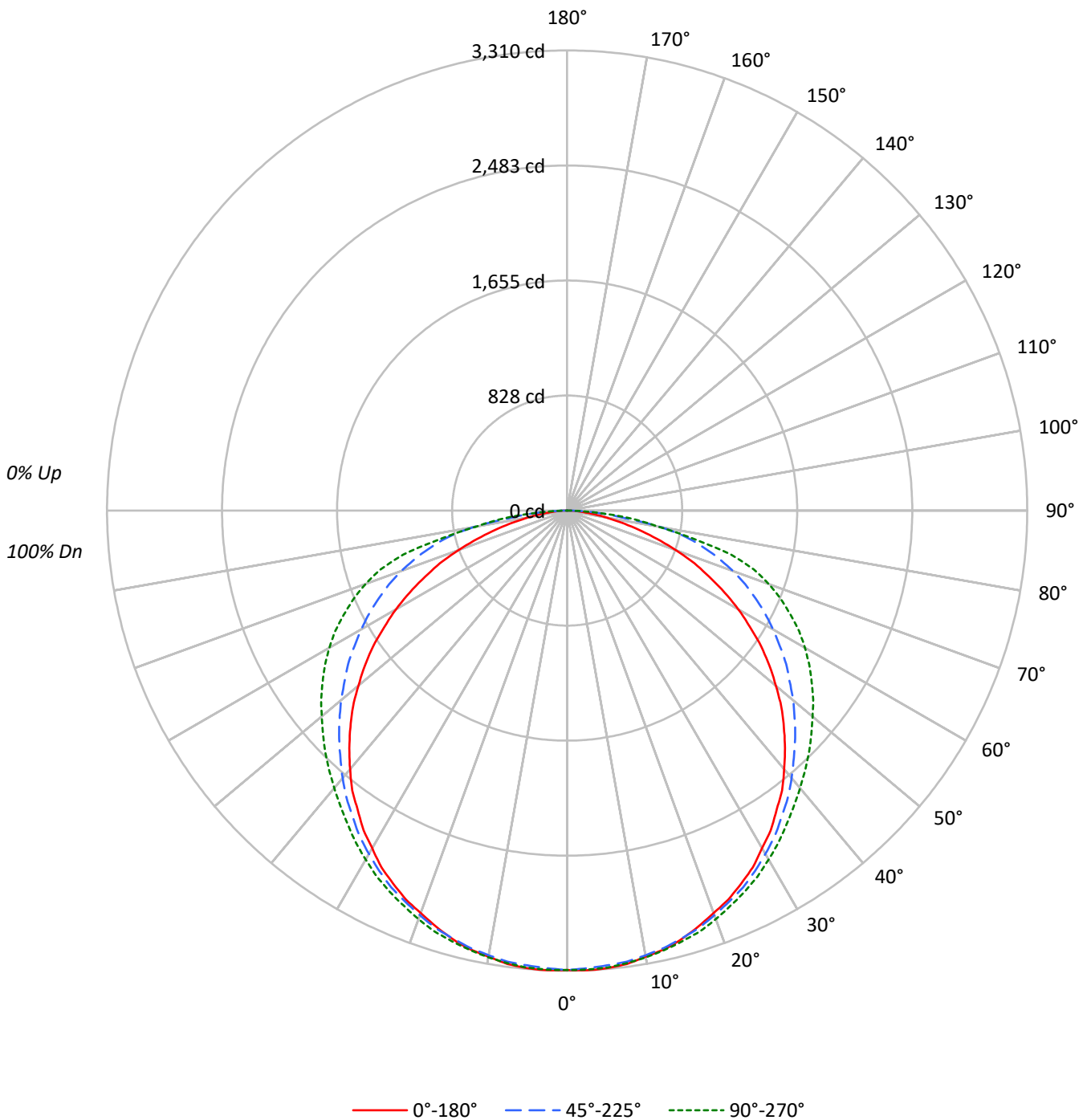
Lumens per Lamp: N/A  
Luminaire Lumens: 10509.4 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 104.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4447	4447	4447
5°	4464	4436	4457
10°	4451	4437	4458
15°	4444	4437	4466
20°	4411	4434	4478
25°	4396	4442	4488
30°	4357	4430	4503
35°	4315	4418	4521
40°	4267	4413	4578
45°	4196	4414	4682
50°	4103	4441	4823
55°	3999	4512	5038
60°	3830	4601	5316
65°	3585	4763	5642
70°	3260	4983	6070
75°	2764	5257	6341
80°	2181	5291	5129
85°	1610	4023	4506



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	313.5	3.0
10°-20°	902.3	8.6
20°-30°	1379.7	13.1
30°-40°	1686.7	16.0
40°-50°	1797.7	17.1
50°-60°	1718.8	16.4
60°-70°	1456.1	13.9
70°-80°	978.6	9.3
80°-90°	276.0	2.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
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0°-30°	2595.5	24.7
0°-40°	4282.2	40.7
0°-60°	7798.7	74.2
0°-90°	10509.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10509.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3305	3305	3305	3305	3305	
5°	3305	3300	3284	3300	3300	314
15°	3190	3190	3185	3211	3206	899
25°	2961	2971	2992	3018	3023	1365
35°	2627	2648	2690	2742	2752	1646
45°	2205	2242	2320	2419	2460	1701
55°	1705	1767	1924	2075	2148	1518
65°	1126	1241	1496	1694	1772	1118
75°	532	725	1011	1183	1220	569
85°	104	214	261	282	292	129
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3304.9	3304.9	3304.9	3304.9	3304.9
2.5°	3310.1	3310.1	3294.5	3304.9	3304.9
5°	3304.9	3299.7	3284.1	3299.7	3299.7
7.5°	3289.3	3284.1	3273.6	3289.3	3284.1
10°	3258.0	3258.0	3247.6	3263.2	3263.2
12.5°	3231.9	3226.7	3221.5	3242.4	3237.1
15°	3190.2	3190.2	3185.0	3211.1	3205.9
17.5°	3138.1	3143.3	3148.5	3169.4	3174.6
20°	3080.8	3091.2	3096.4	3127.7	3127.7
22.5°	3028.6	3033.8	3044.3	3075.5	3075.5
25°	2960.9	2971.3	2992.1	3018.2	3023.4
27.5°	2893.1	2898.3	2924.4	2960.9	2966.1
30°	2804.5	2820.1	2851.4	2893.1	2898.3
32.5°	2726.3	2741.9	2778.4	2820.1	2830.5
35°	2627.2	2648.1	2689.8	2741.9	2752.4
37.5°	2538.6	2554.3	2606.4	2663.7	2679.4
40°	2429.2	2460.4	2512.6	2580.3	2606.4
42.5°	2319.7	2351.0	2413.5	2502.1	2533.4
45°	2205.0	2241.5	2319.7	2418.7	2460.4
47.5°	2090.3	2132.0	2220.6	2335.3	2382.2
50°	1960.0	2012.1	2121.6	2251.9	2304.1
52.5°	1834.9	1897.5	2017.3	2163.3	2231.1
55°	1704.6	1767.1	1923.5	2074.7	2147.7
57.5°	1558.6	1642.0	1814.0	1986.1	2064.3
60°	1423.1	1501.3	1709.8	1897.5	1975.6
62.5°	1277.1	1381.4	1605.5	1803.6	1881.8
65°	1126.0	1240.6	1496.1	1694.2	1772.3
67.5°	990.4	1115.5	1386.6	1584.7	1662.9
70°	828.8	985.2	1266.7	1464.8	1543.0
72.5°	677.7	849.7	1141.6	1334.5	1407.5
75°	531.7	724.6	1011.3	1183.3	1219.8
77.5°	396.2	599.5	875.7	948.7	922.7
80°	281.5	479.6	682.9	646.4	662.0
82.5°	182.4	364.9	422.2	479.6	495.2
85°	104.3	213.7	260.6	281.5	291.9
87.5°	46.9	78.2	104.3	104.3	99.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)